

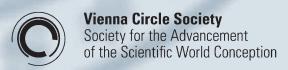


17 Years: 2001-2018

VISU · Vienna International Summer University 2001–2014 USS · univie: summerschool ab 2015

Vienna International Summer School SWC · Scientific World Conceptions

organized by the Institute Vienna Circle, University of Vienna





Since 2001 the Institute Vienna Circle has been holding an annual two-week summer program dedicated to major current issues in the natural and social sciences, their history and philosophy. The title of the program reflects the heritage of the Vienna Circle which promoted interdisciplinary and philosophical investigations based on solid disciplinary knowledge.

Vienna International Summer School SWC • Scientific World Conceptions

2001-2018

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Synopsis

2001 - 2014 VISU-SWC Vienna International Summer University Scientific World Conceptions

organized by the Institute Vienna Circle, University of Vienna



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2015 - 2018 USS-SWC univie: summer school Scientific World Conceptions





USS-SWC · univie: summer school

Until 2014: Vienna International Summer School · VISU-SWC

Editorial

In 2016, the Institute Vienna Circle was celebrating its 25th anniversary as a non-profit society and at the same time its institutional establishment (2011) as a subunit (Department) of the Faculty of Philosophy and Education of the University of Vienna. On these two occasions the Institute Vienna Circle organized a big international conference on "Ernst Mach - Life, Work, and Influence", dealing with the pioneer of an interdisciplinary history and philosophy of science as well as on the precursor of the famous Vienna Circle of Logical Empiricism. In addition, we were celebrating the 15th anniversary of the "Vienna" International Summer University - Scientific World Conceptions" (VISU-SWC), which was awarded the official label "Univie: Summer Schools - Scientific World Conceptions" (USS-SWC) several times from the University of Vienna. Since 2010 USS-SWC has been part of the running FWF Doctoral Program "The Sciences in Historical, Philosophical and Cultural Contexts" and pleasingly linked to a flourishing exchange program with Duke University, represented by Professor Malachi Hacohen, who is also a member of the international Program Committee consisting of renowned scholars from the related research fields. Therefore, we are pleased to have included his address in this brochure featuring all summer schools from the beginning, covering the lecturers, participants, and organizers. In this regard I am grateful to Dr. Karoly Kokai for his long-term work as the USS-SWC's secretary up to 2015, together with Sebastian Kletzl, Karoline Paier, Sabine Koch, and Robert Kaller, who has taking over most of the administrative work form 2016 on. My concluding thanks go to Malachi Hacohen representing Duke University, to Vice-Rectors Arthur Mettinger, Heinz Faßmann, Jean Robert Tyran and the Department of International Relations on behalf of the Vienna University. We are grateful to all lecturers and participants from the beginning on, who enabled such a successful and unique scholarly enterprise at the beautiful Campus of the University of Vienna and we all are looking forward to experiencing many forthcoming Summer Schools. I am pleased to announce that from 2019 on Prof. Martin Kusch will take over the chair of the program committee and the direction of forthcoming Summer Schools.

Friedrich Stadler
Professor em. for History and Philosophy of Science,
University of Vienna
Head, Institute Vienna Circle/Director, Vienna Circle Society
Chair and Local Organizer of USS-SWC, 2001–20018

Scientific World Conceptions: Duke and Vienna

From the very start, Duke University has been an integral part of Scientific World Conceptions, the Vienna Summer School flagship program. It is now seventeen years since Fritz Stadler first shared with me hisplan for an IVC inspired summer program, reviving the legacy of the Vienna Circle (and Karl Popper). I still remember the Executive Committee's first meeting in the fall of 1999: I was its youngest member, in company of well-known academic figures ... The basic idea were clear: history and philosophy of science in international and interdisciplinary setting, bringing together historians, philosophers and scientists, the humanities with the social and natural sciences. But the debates on the ideal focus - was the logic of science to be our paramount concern? — raged for long hours. A dress rehearsal took place, with Duke and Vienna students, in the summer of 2000, just before the HOPOS conference, then, in 2001, the first summer university, on "unity and plurality in science," opened under VISU, Vienna International Summer University, Artur Mettinger's rubric.

Duke students have been part of every summer university since. In 2003, Duke and Vienna have formalized the exchange, providing free Duke tuition to Vienna students during the year in exchange for free summer education to Duke students. Well over a hundred Duke students have since taken advantage of the opportunity to advance their professional training with the leading international experts in their fields. Vienna students have enjoyed welcome in many Duke departments over the years, and six more are anticipated for the coming academic year 2016-17. Four Duke Faculty have taught at VISU/VSS over the years, and I have enjoyed uninterrupted service on the International Program Committee, and seen both continuity and change. University administrations have changed in both Vienna and Duke but the camaraderie and commitment of the Committeehave only increased. Tempers have mellowed, the diversity of approaches increased, and the openness to the historical and cultural making of science expanded. Scientific World Conceptions has provided both Duke and Vienna with a model of how to internationalize - together.

> Malachi Haim Hacohen Bass Fellow and Associate Professor, Duke University History, Political Science, Religion, Jewish Studies, German Studies, Slavic and Eurasian Studies Chair, Council for European Studies

USS-SWC · univie: summer school

Until 2014: Vienna International Summer School · VISU-SWC

Program Committee 2018

MEMBERS OF THE INTERNATIONAL PROGRAM COMMITTEE

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Maria Carla Galavotti (Bologna)
Malachi Hacohen (Duke)
Rainer Hegselmann (Bayreuth)
Michael Heidelberger (Tübingen)
Martin Kusch (Vienna)
Elisabeth Nemeth (Vienna)
Miklós Rédei (London)
Friedrich Stadler (Vienna)
Michael Stöltzner (South Carolina)
Roger Stuewer (Minnesota)
Thomas Uebel (Manchester)

FORMER MEMBERS OF THE INTERNATIONAL PROGRAM COMMITTEE

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Maria Luisa Dalla Chiara (Florence)
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Jan Woleński (Cracow)
Anton Zeilinger (Vienna)

USS · univie: summer school

SWC · Scientific World Conceptions

Since 2001 the University of Vienna and the Institute Vienna Circle* have been holding an annual two-week summer program dedicated to major current issues in the natural and social sciences, their history and philosophy. The title of the program reflects the heritage of the Vienna Circle which promoted interdisciplinary and philosophical investigations based on solid disciplinary knowledge.

As an international interdisciplinary program, **USS-SWC** will bring graduate students in close contact with world-renowned scholars. It will operate under the academic supervision of an International Program Committee of distinguished philosophers, historians, and scientists. The program is directed primarily to graduate students and junior researchers in fields

related to the annual topic, but the organizers also encourage applications from gifted undergraduates and from people in all stages of their career who wish to broaden their horizon through cross-disciplinary foundational issues in science.

The summer course consists of morning sessions, chaired by distinguished lecturers which focus on reading assigned to students in advance. Afternoon sessions are made up of smaller groups which offer senior students the opportunity to discuss their own papers with one of the main lecturers.

USS-SWC is part of the FWF Doctoral Program "The Sciences in Historical, Philosophical and Cultural Contexts". http://dkplus-sciences-contexts.univie.ac.at/

*The Institute Vienna Circle was established in 2011 as a department at the Faculty of Philosophy and Education of the University of Vienna (http://wienerkreis.univie.ac.at/). The former nonprofit society continues its work under the new name "Vienna Circle Society" in co-operation with the department. (http://www.univie.ac.at/ivc/)

Unity and Plurality in Science

July 16-28, 2001

SUMMARY

A unified scientific understanding of nature was once a widely-accepted aim of science and remains so in more than a few areas of contemporary science. In recent years, however, both the possibility and the advisability of unification have been questioned, with some arguing that pluralism should be prized in the sciences, perhaps for political as well as philosophical reasons. This course will consider questions about unity and plurality in science from a variety of philosophical, historical, and institutional perspectives.

SPECIFIC TOPICS

- Theoretical unification in physical science
- Vitalism, materialism, and reductionism in biology
- Relativity, complementarity, and underdetermination: Metaphors of multiplicityin twentieth-century science and philosophy
- The Unity of Science movement and the Vienna Circle
- · The organization of scientific research
- Realism, reduction, simplicity, and explanation: Methodological perspectives onunification



PARTICIPANTS 2001

Albert Ulrich, Allegrini Alessandra, Andersen Holly Kristine, Ascheri Valeria, Barendregt Marko Binder Elke, Bokulich Alisa, Boyles David, Coffey Kevin, Cohnitz Daniel, Dudau Radu, Ph.D. program, Dwivedi Deepak, Güzeldere Güven, Hyder David, Kaplan David, Knispel Harald, Le Uyen, Lentsch Justus, Liebermann Erez, Linguerri Sandra, Ludvig Elliot, Menke Cornelius, Moyle Leonie, Müürsepp Peeter, Nazaran Stephen, Neuber Matthias, Nickl Richard, Novack Gregory, Novák Zsolt, Özaltun Eylem, Pincock Chris, Pojman Paul, Ramsey Grant, Rockmann Matthew, Roskies Adina, Schulleiter-Bouhnick Sharon, Seppänen Jouko, Sherman Caroline, Sommers Tamler, Toader Iulian Danut, Yang Andrew, Yeates Owen, Zemplen Gabor Aron.

Don Howard (University of Notre Dame, USA)

Don Howard is Professor of Philosophy and Director of the History and Philosophy of Science Graduate Program at the University of Notre Dame. His research interests include the foundations of physics, the history of nineteenth- and twentieth-century physics, and the history of the philosophy of science. Co-founder of HOPOS, the History of Philosophy of Science Working Group, contributing editor of The Collected Papers of Albert Einstein (Princeton University Press), and co-editor, with John Stachel, of the Einstein Studies series (Birkhäuser). Howard is currently working on a book on Einstein's philosophy of science, as well as a study of the institutional history of the philosophy of science in North America in the mid-twentieth century.



Elliott Sober (University of Wisconsin, USA)

Elliott Sober is Hans Reichenbach Professor of Philosophy and Henry Vilas Research Professor at the University of Wisconsin, Madison, USA, where he has taught since 1974. His research is in philosophy of science, especially in the philosophy of evolutionary biology. Sober is a past president of the American Philosophical Association Central Division and a fellow of the American Academy of Arts and Sciences. Sober's books include The Nature of Selection – Evolutionary Theory in Philosophical Focus (MIT Press, 1984; 2nd edition, University of Chicago Press, 1993), Reconstructing the Past – Parsimony, Evolution, and Inference (MIT Press, 1988), Philosophy of Biology (Westview Press, 1993), From a Biological Point of View – Essays in Evolutionary Philosophy (Cambridge University Press, 1994), and (with David S. Wilson) Unto Others – The Evolution and Psychology of Unselfish Behavior (Harvard University Press, 1998).



GUEST LECTURER

Brigitte Falkenburg (University of Dortmund, Germany)
BOHR'S AND CASSIRER'S NON-EMPIRICIST VIEWS OF QUANTUM THEORY

ASSISTANT LECTURERS

Christopher Hitchcock (California Institute of Technology, Pasadena, USA)

David J. Stump (University of San Francisco, USA)







Mind and Computation

July 15-26, 2002

SUMMARY

Since the nineteenth century, experimental, clinical and anatomical studies of the brain have vastly determined the brain as an organ, in which various psychological qualities are located in different regions. This has resulted in a cerebral topography of man that seeks to decipher man beyond the mind-matter dualism. Thought in itself, perceptions and language, previously issues of philosophy, have now become an object of the life sciences. At the same time, however, models of cognition based on the language of thought have become crucial for the philosophy of mind.

Around the middle of the twentieth century, the brain became conceptualized as a computer, and this led to numerous fruitful research enterprises. More recently, however, the equation between brain and computer has been challenged. One aim of this Summer University is to discuss various shifts in the relation between mind, brain and computation from a historical and epistemological point of view. Moreover, the Summer University will focus on the relation between physiological and mental processes, for example, the relation between low-level vision accounts of color perception and their interaction with theories of visual consciousness.

SPECIFIC TOPICS

- The architecture of the mind: the classicism/connectionism debate
- The history of the cerebral localization of the mind
- · Minds and machines in the age of cybernetics
- · Metaphors for the brain and its activit
- Reverse optics and the study of color consciousness
- Single cells and cerebral architectures: functional units of the brain in historical perspective
- Information, observation and consciousness in quantum physics.



PARTICIPANTS 2002

Abramson Darren, Boeck Manuel, Brich Florian, Camblin C. Christine, Campaner Raffaella, Cevher Kadriye Bürkem, Daniels Malte C., Diaz Michele T., Erdur Melis, Garson Justin, Hetmanski Marek, Hicks Marie E., Kaplan David M., Knispel Harald, Linquist Stefan, Ludvig Elliot A., Luo Jun, Mayhall Wayne, Michael John, Orgill Nathan, Pilorz Katarzyna, Mag., Plate Jan, Pulkkinen Jarmo, Rozario Tom, Sterrett Susan, Taylor Nadia Claudine, Theiner Georg, Wager Adam, Whiting Benjamin.

Michael Hagner (Max Planck Institute for the History of Science, Berlin, Germany)

Michael Hagner is Senior Fellow at the Max Planck Institute for the History of Science in Berlin. His research interests include the history of the neurosciences, the history of experimentation, and the relation between history of science and cultural history.

Hagner is the author of Homo cerebralis. Die Lokalisation der geistigen Eigenschaften und das moderne Verständnis vom Menschen (1997, English translation in preparation) and has edited Der "falsche" Körper. Beiträge zu einer Geschichte der Monstrositäten (1995) and Ecce cortex. Beiträge zur Geschichte des modernen Gehirns (1999). He has also edited Ansichten der Wissenschaftsgeschichte (2001)



Brian P. McLaughlin (Rutgers University, USA)

Brian McLaughlin is Professor at Rutgers University, New Brunswick, USA, where he has taught since 1995. His research is in the field of cognitive science, philosophy of mind and analytic philosophy. Several visiting professorships in the United States and Germany.

McLaughlin is co-editor of Actions and Events: Perspectives on the Philosophy of Donald Davidson (1985), Perspectives on Self-Deception (1988), and editor of Dretske and His Critics (1991). He has published many articles in the forementioned areas of research.



GUEST LECTURER

Anton Zeilinger (University of Vienna, Austria) 10. Wiener Kreis Vorlesung / 10th Vienna Circle Lecture as part of VISU: OBSERVER AND REALITY IN QUANTUM PHYSICS

Anton Zeilinger is Professor and Director of the Institute of Experimental Physics at the University of Vienna. He and his group – one of the world's leading experimental quantum physics research groups – have realized in experiment many fundamental predictions of quantum theory. Among his many awards and prizes are the membership of the German order Pour le Mérite and the Senior Humboldt Fellow Prize. Zeilinger is author and editor of seminal books and many articles on Quantum Physics, Quantum Information and Quantum Cryptography.



ASSISTANT LECTURERS

Güven Güzeldere (Duke University, Durham NC, USA)
Paul Ziche (Bayerische Akademie der Wissenschaften, Germany)





Biological and Cosmological Evolution

July 14-27, 2003

SUMMARY

Our world is not static, as was the prevailing view in past ages – but dynamic. It evolves. This holds for the large-scale structures in the universe as well as for the bio-molecules. The Summer University 2003 is devoted to the major scientific aspects of cosmological and biological evolution, the key ideas of which originated in the early decades of the previous century.

The theory of general relativity revolutionized our view of the nature of space, time, and gravitation; and the neo-Darwinian synthesis merged genetics with the theory of natural selection. Both fields progressed enormously during the past forty years: the 'big bang' theory was dramatically confirmed by the discovery of the cosmic microwave background radiation, and evolutionary biology linked up with genomics. Yet we still do not know the answer to some very basic questions concerning, for instance, the origin of life or the origin and ultimate fate of the universe.

The lectures on cosmological evolution will explain the basic nature of general relativity, describe its implications for cosmology, and address recent developments in theoretical and observational cosmology. The lectures on biological evolution will concentrate on the major transitions, in particular prebiotic evolution, the origins of multi-cellularity, the role of sex and the emergence of social structures. Topics will include the principles of population genetics and ecological modelling, random drift and selection, competition and cooperation, and applications of game theory to population dynamics.

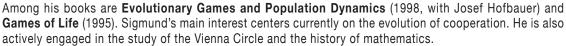


PARTICIPANTS 2003

Altúnay Rüstem Ertug, Bizon Michal, Coffey Kevin, Dickison Mike, Dorfmayr Anita, Foster Jacob, Fox Tobias, Häfner Ralf, Hourdequin Marion, Kaplan David M., Kizilova Natalya, Kniskern Joel, Lenhard-Backhaus, Linquist Stefan, Ludvig Elliot, Mayhall Wayne, Michael John, Papa Stefano, Perovic Slobodan, Ponce Veronica, Pringle Hernán Bruno, Ramsey Grant, Roy Saberi, Simon David, Soos Sandor, Vivoli Beatrice, Weinstein Steve, Wilkens Matthew, Zufall Rebecca.

Karl Sigmund (University of Vienna, Austria)

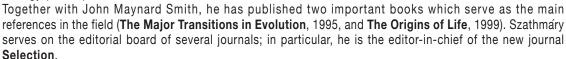
Karl Sigmund is professor of mathematics at the University of Vienna. He works on dynamical systems, and in particular on evolutionary game theory, a field which he helped to found, together with his collaborators Josef Hofbauer and Martin Nowak. Sigmund, who was for many years president of the Austrian Mathematical Society and Editor in Chief of the **Monatshefte für Mathematik**, is a member of the Austrian Academy of Science. Many of his contributions deal with diverse aspects of biomathematics, as for instance population genetics, mathematical ecology, epidemiology and modelling of animal behaviour.





Eörs Szathmáry (Eötvös Loránd University, Hungary)

Eörs Szathmáry is professor of biology and head of the Department of Plant Taxonomy and Ecology of Eötvös Loránd University, Budapest. His main interest is theoretical evolutionary biology and focuses on the common principles of the major steps in evolution, such as the origin of life, the emergence of cells, the origin of animal societies, and the appearance of human language. Szathmáry was awarded the New Europe Prize in 1996 by a group of institutes for advanced study, and the Academy Prize 1999 by the Hungarian Academy of Science. He is the President of the International Organisation for Systematic and Evolutionary Biology (IOSEB).





Robert M. Wald (University of Chicago, USA)

Robert Manuel Wald is the Charles H. Swift Distinguished Service Professor of Physics at the University of Chicago. He is a fellow of the American Physical Society and the American Academy of Arts and Sciences, and is a member of the U.S. National Academy of Sciences. His research interests center on general relativity – particularly, the theory of black holes – and extend to cosmology and quantum gravity. Wald is the author of the textbook/monograph General Relativity (1984) and the lecture note volume Quantum Field Theory in Curved Spacetime and Black Hole Thermodynamics (1994).



ASSISTANT LECTURER

Daniel Holz (University of California, Santa Barbara, USA)

Daniel Holz is a postdoctoral fellow of the Institute for Theoretical Physics, at the University of California, Santa Barbara. His research has focused on the interface between general relativity and cosmology. This has included extensive work on the effects of gravitational lensing, in addition to a broad array of other projects (ranging from numerical relativity and gravitational wave astrophysics, to cosmological dark matter and random matrix theory).



The Quest for Objectivity

July 19-30, 2004

SUMMARY

The importance of objectivity in the biological sciences is underscored by episodes in which external values have misled scientists. But what do we do with cases in which external values seem to have led scientists in the right direction? To address these issues, we will take an in-depth look at the role of natural theology and political economics in the development and reception of Darwin's theory of evolution by natural selection. Literature will include primary sources in 19th century natural history, natural theology, political economics and philosophy of science; secondary literature on the Darwinian revolution; and contemporary literature on objectivity and the distinction between internal and external values. The aim is primarily to advance our understanding of objectivity in science, but also secondarily to provide students with the resources to teach the Darwinian revolution, and to mine that set of developments for broader philosophical and science studies purposes.

The philosophical question concerning the objectivity of the physical sciences begins in the modern period with Kant's philosophy of natural science in the late eighteenth century. Kant made the objectivity of human cognition into a central philosophical theme, and he took the Newtonian mathematical physics that dominated the eighteenth century as one of his most important models of objective human knowledge as such. During the nineteenth century, however, a wide variety of new styles of physical theorizing were developed. Scientific philosophers of the nineteenth century, such as Helmholtz, Mach, and Poincaré, responded to these new developments and attempted, accordingly, to extend or modify the Kantian theory of objectivity to accommodate them.

The development of non-Euclidean geometry also played an important role, since Euclidean geometry had provided Newton (and Kant) with an underlying mathematical framework within which physical theory was supposed to be formulated. Finally, the articulation of Einstein's theories of relativity at the beginning of the twentieth century appeared to undermine the Newtonian and Kantian pictures completely and led, for precisely this reason, to the radically new approach to scientific objectivity constructed by the logical empiricists in Vienna and Berlin. We shall examine these historical developments and then discuss their implications for objectivity in the physical sciences today. In particular, we will look at Kuhn's Structure of Scientific of Revolutions against this background and discuss the prospects that might emerge for a post-Kuhnian philosophy of scientific objectivity.

The lectures, concerning the quest for objectivity in the social sciences, will consider two kinds of challenge to objectivity ideals. The very attempt to develop scientifically objective accounts of scientific understandings of human life and activity on the model of physics has seemed to undermine conceptions of what it is to be human - capacities of intentionality. deliberation, and self-reflection. Either such knowledge is not possible or what we take to be distinctive features of human life are an illusion. We will critically review the understanding of objectivity that results in this dilemma, focusing on forms of reductionism in biology and economics. Secondly the very possibility of objectivity for any science has been challenged by recent work in social, cultural, and feminist studies of science. We shall critically review the scope and force of these challenges. The conclusion will offer some suggestions towards resolution of both challenges.



PARTICIPANTS 2004

Almendares Nicholas, Ahmad Rana, Bowsher Julia, Boyles David, Dubois Mark, Dickison Mike, Fagan Melinda, Gabbani Carlo, Gerlach Erich, Hlavac Monica, Hourdequin Marion, Kukso Boris, Lafrançois Toben, Leonelli Sabina, Mcivor David, Narchi Nemer, Newman Alexandra, Sxhrittesser David, Scotto Thomas, Sezener Aysegül, Shidmehr Nilofar, Tankersley Dharol, Stachel Thomas, Van Bouwel Jeroen, Van Dyck Maarten, Yang Andrew, Yeates Owen.

John Beatty (University of British Columbia, Canada)

John Beatty teaches history and philosophy of science in the Department of Philosophy at the University of British Columbia in Vancouver. His research focuses on the theoretical foundations, methodology, and sociopolitical dimensions of genetics and evolutionary biology. He co-directs the MBL-Dibner Seminar in the History of Biology, which is held yearly at the Marine Biological Laboratory in Woods Hole, Massachusetts. His current research projects concern: the atomic age and cold war dimensions of genetics and evolutionary biology in the 1940s–1970s, and the longstanding distinction between the so-called "historical" sciences (e.g., evolutionary biology) and the "exact" or "experimental" sciences. He is a coauthor of **The Empire of Chance: How Probability Changed Science and Everyday Life** (1995).



Michael Friedman (Stanford University, USA)

Michael Friedman has taught at Harvard University, the University of Pennsylvania, the University of California at Berkeley, the University of Konstanz, the University of Illinois at Chicago, and Indiana University. He moved to Stanford University in 2002 as the first Frederick P. Rehmus Family Professor of Humanities. At Stanford he is also a professor of Philosophy and co-director of the Program in History and Philosophy of Science and Technology. He has held grants and fellowships from the American Council of Learned Societies, the National Science Foundation, the National Endowment for the Humanities, and the John Simon Guggenheim Foundation. He has served as President of the Central Division of the APA and as President of the PSA. He was elected Fellow of the AAAS in 1997, and Membre titulaire de l'Institut international de philosophie in 2000.



His publications include Foundations of Space-Time Theories: Relativistic Physics and Philosophy of Science (1983), Kant and the Exact Sciences (1992), Reconsidering Logical Positivism (1999), A Parting of the Ways: Carnap, Cassirer, and Heidegger (2000), and Dynamics of Reason (2001).

Helen Longino (University of Minnesota, USA)

Helen Longino is Professor of Philosophy and Women's Studies at the University of Minnesota and a member of the Minnesota Center for Philosophy of Science.

She is the author of **Science as Social Knowledge** (1990) and of **The Fate of Knowledge** (2001). She has also coedited a number of anthologies in feminist science studies and has published numerous articles in the philosophy of science and in feminist philosophy. Presently she is working on a comparative study of four **Approaches in the Sciences of Behavior** and, with colleagues C.K. Waters and S. Kellert, is preparing a volume on **Scientific Pluralism** for the Minnesota Studies in Philosophy of Science.



SPECIAL LECTURE

Helen Longino (University of Minnesota, USA)

12. Wiener Kreis Vorlesung / 12th Vienna Circle Lecture as part of VISU:
PHILOSOPHY OF SCIENCE AFTER THE SOCIAL TURN

Chance and Necessity. Historical and Systematic Inquiry

July 18-29, 2005

SUMMARY

Chance and probability were never purely mathematical topics. In the European tradition, they were full of religious and philosophical significance from at least the period of the Renaissance. Since then they have become increasingly integral to natural science, and at the same time to social, political, medical, and economic affairs. The course surveys this large historical trajectory by focusing on some themes and moments of particular interest and significance.

The lectures attempt to fulfil three tasks: First, they should provide an overview of the topic at hand and its problems. There is a perfect parallel between the case of chance and the case of necessity. To bring out this parallel will be the second task of the course. Moreover, the basic problem has to do with the fact that the objectivity involved in chance and necessity is still poorly understood. A broadly projectivist account of this objectivity appears to be as most revealing. So, the third task of this course is to give a precise account of the projectivist account of the objectivity of chance and natural necessit.

SPECIFIC TOPICS

Historical Inquiry into Chance and Necessity

- Subjective and objective probabilities. Probability in the eighteenth century was a guide to right reasoning; statistics in the nineteenth became the science of social collectives.
- Statistical models in the sciences. Physics, physical chemistry, and biology all developed statistical formulations in the late nineteenth and early twentieth centuries. But not without opposition, for statistics challenged some basic ideals of scientific reasoning.
- A universe of chance. Statistics meant the taming of chance, order out of chaos. Ironically, it therefore allowed the recognition of chance and variation in the elementary phenomena of the world.
- In pursuit of objectivity. In the twentieth century, statistics
 be came above all a set of mathematical strategies of
 scientific inference, which then were linked to canons of
 experimental design. In this guise, statistics contributed to
 a reshaping of public policy, and with it, of the public role
 of the scientist.
- Markets and gambling. Our story circles back to the science of reasoning under uncertainty, which in the later twentieth century has been applied with great ambition to business and investing.

Systematic Inquiry into Chance and Necessity

- · General introduction into modality
- · Subjective probability
- Objective probability: an overview
- · David Lewis' conception of objective probability
- A projectivistic reconstrual of this conception
- · Objectivistic conceptions of natural laws and causation
- Foundations for a subjectivistic account: ranking theory
- · A ranking-theoretic account of laws of nature and causation
- · How to objectify this account
- The probabilistic-deterministic parallel between chance and necessity



PARTICIPANTS 2005

Abaci Uygar, Bigliardi Stefano, Burkett Andrew, Campaner Raffaella, Camyshev Andrei, Dubois Mark, English William, Fox Tobias, Karitzis Andreas, Kukso Boris, Morris Jeremy, Overton James, Schulz Patricia, Shidmehr Nilofar, Spencer Richard, Sterrett Susan, Vallejo-Marin Mario, Vestarchis Nick, Yeates Owen.

Theodore M. Porter (University of California, Los Angeles, USA)

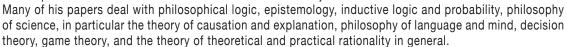
Theodore M. Porter studied history and history of science at Princeton, where he took his Ph.D. in 1981 with a dissertation on the history of statistics. He spent a year as member of a research group on the "probabilistic revolution" at the Center for Interdisciplinary Research (ZiF) of the University of Bielefeld (Germany) in 1982–1983. Since 1991 Porter has been professor of history of science in the Department of History at the University of California, Los Angeles.

His books – The Rise of Statistical Thinking, 1820–1900 (1986), The Empire of Chance (1989), Trust in Numbers (1995), Cambridge History of Science, vol. 7: Modern Social Sciences (2003) – focus on: statistical reasoning penetrating the social and natural sciences, the history and the implications of probability and statistics from the seventeenth century to recent times, the relations of quantification and calculation to an ideal of selfless or impersonal reasoning, and the relation of this mechanical form of objectivity to the societies within which it has flourished. His book, Karl Pearson: The Scientific Life in a Statistical Age (2004), is about the unruly life of the founder of the modern field of statistics, and about the historical vision, philosophical sensibility, and moral ideals that framed this new field for Pearson.



Wolfgang Spohn (University of Konstanz, Germany)

Wolfgang Spohn studied philosophy, logic & philosophy of science, and mathematics at the University of Munich. He acquired his MA in 1973 and his Ph.D. in 1976 and completed his Habilitation in 1984. Until 1985 he was research assistant at the Institute of Philosophy of Science under Wolfgang Stegmüller at the University of Munich and subsequently Fellow at the Wissenschaftskolleg zu Berlin. In 1986 he was appointed professor at the University of Regensburg, and in 1991 he received a chair at the University of Bielefeld. Since 1996 he has held a chair for philosophy and philosophy of science at the University of Konstanz. He has been in charge of various research projects, most notably the DFG research group titled "Logik in der Philosophie". From 1988–2001 he was editor-in-chief of the journal Erkenntnis.





GUEST LECTURER

Maria Carla Galavotti (University of Bologna, Italy)

13. Wiener Kreis Vorlesung / 13th Vienna Circle Lecture as part of VISU: PROBABILITY AND ITS INTERPRETATIONS

ASSISTANT LECTURERS

Deborah Coen (Harvard University, USA) Franz Huber (University of Konstanz, Germany)







Philosophy and Economics

July 17-28, 2006

SUMMARY

The course deals with some fundamental problems of philosophy and economics, spanning a wide range of topics from ethics to methodology and addressing both substantial and formal, historical and topical issues. This approach shows how broad the field of "Philosophy, Politics, and Economics" has become, as is also reflected in our present interests as philosopher-economists. Alluding to one of John Broome's titles, we could say that we have both "economics out of philosophy" and "philosophy out of economics". The course is genuinely interdisciplinary. In addition to material assigned for each lecture, general background material (as a sort of introductory course to "philosophy and economics") will be provided in electronic form to facilitate an inter-disciplinary discussion.

SPECIFIC TOPICS

- The economic approach to ethics
- · Discounting the future
- Rational choice from a participant's and from the objective point of view
- Arrow and the economic approach
- · Sen and Coase
- · Trust, its role and its evolution
- · Economising on virtue
- · The economy of virtue
- David Hume's theory of government
- · Esteem: conceptual and analytic
- · No theory of justice
- · Expressive voting
- Public and private responsibility in health care and the limits of state action



PARTICIPANTS 2006

Aslam Ali, Bertram Christoph, Brantl Dirk, Breen Deborah, Brown Winter, Burkett Andrew, Culp Julian, Eiffe Franz Ferdinand, English William, Fehling Jochen, Fink Julian, Ghoddusi Hamed, Glassner Edwin, Griner Shlomo, Hassoun Nicole, Herfeld Catherine, Jabold Nina, Kiriyanova Liliya, Labude Markus, Lee Christine Mingwhey, McGrain Janette, Meder Zsombor-Zoltan, Nakayama Chikako, Sarkissian Hagop, Schäfer Sebastian, Schlosser Joel, Sepielli Andrew, Spencer Richard, Stanev Roger, Weinhold Nicolas, Woitzik Peter.

Geoffrey Brennan (Duke University, USA)

Geoffrey Brennan, trained as an economist, gradually drifted from public economics to rational actor political theory, and then to political and moral philosophy.

From 2000 to 2005, he was editor of Economics and Philosophy and in 2002–2004 president of the (world) Public Choice Society, the first non-American to be so appointed in the forty-year history of the Society. He co-authored, with Nobel Laureate, James Buchanan, **The Power to Tax** (1980) and **The Reason of Rules** (1985); and with Loren Lomasky **Democracy and Decision** (1993). Two of his books are **Democratic Devices and Desires** (2000) co-authored with Alan Hamlin; and **The Economy of Esteem** (2004) with Philip Pettit. He has published more than a hundred articles in refereed journals and some sixty chapters in scholarly monographs. Some of these articles involve collaboration with Hartmut Kliemt. Both Kliemt and Brennan were part of the editing team (with Robert Tollison) of the 20-volume Collected Works of James Buchanan.



Hartmut Kliemt (University of Duisburg, Germany)

After studying philosophy, economics and mathematics at the universities of Regensburg, Göttingen, Frankfurt and Hagen 1968–1974 he received degrees in business administration (1974, Frankfurt) and philosophy (1977, Frankfurt). Served as research assistant in operations research, 1974–1976, and philosophy of law, 1976–1980. In 1983 he completed his Habilitation in Philosophy at the University of Frankfurt. In 1988 he became professor for practical philosophy at Duisburg. As a philosopher-economist, his present main research interests are the philolosophical foundations of rational choice and game theory, political philosophy and practical ethics, in particular questions of resource allocation in medicine.

His books include **Zustimmungstheorien der Staatsrechtfertigung** (1980, also in Spanish), **Moralische Institutionen**, (1985, also in Spanish), **Antagonistische Kooperation** (1986), **Grundzüge der Wissenschaftstheorie. Eine Einführung für Mediziner und Pharmazeuten** (1986). A list of publications can be found on the home page of the Philosophy Department of the University of Duisburg-Essen.



GUEST LECTURER

Rainer Hegselmann (Universität Bayreuth, Germany)

14. Wiener Kreis Vorlesung / 14th Vienna Circle Lecture as part of VISU:

TRUTH AND COGNITIVE DIVISION OF LABOR – FIRST STEPS TOWARDS A COMPUTER-AIDED SOCIAL EPISTEMOLOGY



Bernd Lahno (University of Duisburg, Germany)





Consensus in Science

July 16-27, 2007

SUMMARY

In the course of the twentieth century, science became increasingly intertwined with technology and matters of social relevance. As a result, science is viewed today as an essentially practical endeavor. Science and technology appear inextricably interwoven with one another. This development is viewed in many quarters as a fundamental reorientation of science and its relationship with technology. Science in the context of practice is assumed to operate under conditions significantly different from the rules and regulations of traditional academia.

There are three overlapping themes in the course that deal with the topic from a historical, philosophical, and sociological perspective, respectively. The issue involves methodological and epistemological questions concerning research in the service of technological development as well as sociological questions about the institutional characteristics such research acquires. These questions give rise to various contrasts and oppositions such as commissioned research versus research in the public interest, epistemic research versus application-oriented research, research under the aegis of the linear model versus applied research.

SPECIFIC TOPICS

- Consensus
- Dissent
- John Stuart Mill
- · Paul Feverabend
- Consensus conferences
- Case studies:

The Great Devonian Controversy
Theories of light
Expansion of the universe
The case of continental drift
Recent theories of smell
Intelligent design versus natural evolutionism
Anthropogenic global warming versus natural climate variability



PARTICIPANTS 2001

Beham Bernhard Johann Karl, Behnke Dominique, Bolech Bernhard, Bowler Kimberly, Buhara Berrak, Calosi Claudio, Ciapciak Shannon, English William, Hanagan Nora, Hawa Bilal, Henson Carlton, Icen Ilksen Necati, Ledebur Sophie, Macleod Miles, Mayer Heatherlyn, Michael John, Misar Katja, Müggenburg Jan, Neubauer Tamara, Ong James Abordo, Pircher Josef, Pohl Laurie, Romizi Donata, Rosales Alirio, Sarsissian Hagop, Shidmehr Nilofar, Siemsen Hayo, Steininger Benjamin, Surman Jan J, Szanto Veronika, Tribbett Krystal, Walch Sonja, Zemplen Gabor.

Naomi Oreskes (University of California, San Diego, USA)

Naomi Oreskes received her B.Sc. (1981) in mining geology at the University of London and her Ph.D. (1990) in geological research and the history of science at Stanford University. She is currently Professor of History at the University of California, San Diego, where her research focuses on the history of methods, practices, and knowledge in the earth and environmental sciences. Her current projects include the role of global politics in shaping the research agenda of 20th century earth science, and the history of the establishment of a scientific consensus on the reality of global warming and its human causes. She has been a consultant to the United States Environmental Protection Agency, the U.S. Nuclear Waste Technical Review Board, and she currently serves on a National Academy of Sciences/National Research Council Committee on the Use of Models in Regulatory Decision-Making.



Miriam Solomon (Temple University, Philadelphia, USA)

Miriam Solomon was an undergraduate in Natural Sciences at Cambridge University from 1976–79, eventually specializing in History and Philosophy of Science. She continued with graduate studies in general philosophy, completing a Ph.D. at Harvard University in 1986 with a dissertation on Quine. She is currently Professor of Philosophy at Temple University.

She has published widely in epistemology, philosophy of science, gender and science, ethics of science and philosophy of medicine. Her book, **Social Empiricism** (MIT Press, 2001), is an extended discussion of the place of dissent and consensus in scientific change. Currently, she is working on two projects: the social epistemology of scientific creativity and the epistemic role of consensus conferences in an age of "evidence-based" medicine.



Andrzej Wróblewski (University of Warsaw, Poland)

Andrzej Kajetan Wróblewski received his M.Sc. (1955) and Ph.D. (1961) at Warsaw University where he has worked as associate professor (1965–1970) and full professor since 1971. He was research scientist at CERN, Geneva; visiting professor at University of Washington, Seattle, and Siegen University. He has also lectured and given shorter courses at several European and U.S. universities. He holds administration positions in Warsaw. Many Polish and international honours and honorary doctorates.

His publications include more than 200 papers on physics, history of science and administration of science, six books (in Polish) and several hundred popular articles on physics, astronomy, and history of physics.



GUEST LECTURER

Keith Lehrer (University of Arizona, Tucson, USA)
15. Wiener Kreis Vorlesung / 15th Vienna Circle Lecture as part of VISU:
CONSENSUS IN ART AND SCIENCE



History and Philosophy of the Biomedical Sciences

July 30-11, 2008

SUMMARY

The field of History and Philosophy of the Biomedical Sciences has become in the recent decade a hot spot in historical research and philosophical debate. The increasing place of biomedical sciences in contemporary societies and individual lives has raised many questions concerning the epistemological status and practice of biology and medicine of biology and medicine.

The course will deal with some of the fundamental philosophical problems of biomedical sciences, raised by their historical development since the age of the Scientific Revolution of the 17th century to the very contemporary development in biomedicine, biotechnology and medical practices.

Selected topics of historical and philosophical relevance will be covered, which are at the core of present-day debates and have great relevance for bioethical debates and social and political concerns on the role of biology and medicine in our societies. Particular attention will be devoted to some methodological issues and to the necessary link between historical and philosophical inquiries.

The course will be necessarily trans-disciplinary and because of its advanced content, general background and introductory material will be distributed to the participants in advance in order to facilitate the discussion and a common reflection on the topics suggested.

SPECIFIC TOPICS

- The epistemological status of medicine
- The Hippocratic tradition, from Hippocrates to the Nineteenth Century
- The origins of scientific medicine (16th–20th centuries)
- The concept of disease: Historical roots and philosophical perspectives
- · Causality in biomedical sciences.
- · An historical and epistemological analysis
- The pragmatics of causation in clinical practice
- The philosophical debate on the normal and the pathological
- The role of the case in medical reasoning
- · Error in medicine
- From germs to genes: Theories on generation and infection (16th-20th centuries).
- Form, information, and programmes: The rise of the molecular explanation of life and disease
- · Moral issues associated with gene therapy
- Darwinian Medicine: How evolution by natural selection can explain health and disease?
- Historical and epistemological issues associated with animal models in biomedical researc
- The social and economical determination of health and disease: The McKeown Thesis
- Historical and epistemological issues in Evidence Based Medicine



PARTICIPANTS 2008

Aronova Elena, Beham Bernhard Johann Karl, Behnke Dominique, Bolech Bernhard, Borri Matteo, Busza Ania, Castelao-Lawless Teresa, Charleroy Margaret, De Vreese Leen, English William, Giles Elizabeth, Howick Jeremy, Johnson Eric, Koskinen Risto, Ledebur Sophie, Merelo Lobo Ana Rita, Long Arwen, MacLeod Miles, Methot Pierre-Olivier, Michael John, Misar Katja, Paton Alexis, Perkins Lucas, Pimenta Conceição, Romizi Donata, Sankaran Neeraja, Shaw Alexandra, Siemsen Hayo, Siemsen Liliana, Stanev Roger, Sunderland Mary, Vargha Dora, Walch Sonja.

Rachel A. Ankeny (University of Adelaide, Australia)

Rachel A. Ankeny has a BA in Liberal Arts (Philosophy/Maths, St John's College, Santa Fe, NM), and MA degrees in Philosophy and in Bioethics and a PhD in the History and Philosophy of Science (all from the University of Pittsburgh, PA), and a MA in Gastronomy (University of Adelaide). She is currently senior lecturer in history at the University of Adelaide, and was director and lecturer/senior lecturer in the Unit for History and Philosophy of Science at the University of Sydney from 2000–2006. Ankeny's research interests include the roles of models and case-based reasoning in science, model organisms, the philosophy of medicine, and the history of contemporary life sciences. Her research in bioethics examines ethical and policy issues in genetics, reproduction, women's health, embryo and stem cell research, and food, among other topics.



She is a member of several editorial boards for scholarly journals in HPS and bioethics, and associate editor of the **Journal of the History of Biology.**

Bernardino Fantini (University of Geneva, Switzerland)

Bernardino Fantini received his Doctor in Biochemistry (1974) at the University La Sapienza in Rome and his PhD in the History of Science and Medicine (1992) at the Ecole Pratique des Hautes Etudes, Paris-Sorbonne. He is currently Professor of History of Medicine and Director of the Institute of the History of Medicine and Health at the University of Geneva. His main research subjects are the history of the life sciences, epistemology of biology and medicine and the history of the relationships between medicine and music.



He is editor-in-chief of the journal **Medicina & Storia**, Editor of the journal **History and Philosophy of the Life Sciences**, corresponding member of the Académie Internationale d'histoire des sciences and president of the Italian Institute of Anthropology.

David Wootton (University of York, UK)

David Wootton is Anniversary Professor of History at the University of York. He was educated at the Universities of Cambridge and Oxford, and has held visiting positions at Cambridge, Princeton, Washington (St Louis), and McGill, and permanent positions at the Universities of London (twice) and Brunel in England and at the Universities of Halifax, London, and Victoria in Canada. He has held chairs in History, Politics, and Humanities.



He is author of **Bad Medicine: Doctors Doing Harm Since Hippocrates** (Oxford, 2006). He has published widely on early modern intellectual history, particularly the history of political theory and of atheism, and has translated Machiavelli, More, and Voltaire, and edited Locke in editions published by Hackett. He reviews regularly for the **Times Literary Supplement** and the **London Review of Books**. He is currently writing on Galileo for Yale University Press, with funding from the Leverhulme Foundation. www.badmedicine.co.uk and www.york.ac.uk/depts/hist/staff/wootton.shtml

GUEST LECTURER

Keith Wailoo (Rutgers University, New Jersey, USA)

THE PROBLEM OF PAIN IN THE BIOMEDICAL SCIENCES AND COMPARATIVE PERSPECTIVE ON GENETICS DISEASES



The Culture of Science and Its Philosophy

July 13-24, 2009

SUMMARY

With the rise of specialized sciences, understood to be autonomous from philosophy, and the rise of philosophical positivism, philosophers and scientists debated among themselves claims for objectivity, realism, and truth in the sciences. They discussed, too, the roles that scientists and scientific knowledge justifiably play in political systems, social policy, and technological development. As secularism strengthened and religious metaphysics waned, philosophers also began to concern themselves with the scientific standing of philosophy itself. Arguably, the debates about the scientific status of philosophy became the most crucial debates in the historical framing of twentieth-century philosophy. At this same time, however, the specialist sciences increasingly faced challenges to their traditional claims to universal knowledge.

There are three main overlapping themes in the course. One theme concerns crucial aspects of philosophical debates from roughly 1870 to 1950, the alternatives offered, and some lingering consequences for analytic philosophy that arise from its historical relations to scientific philosophy. A second theme concerns the possible replacement of the Enlightenment idea that science delivers the absolutely objective truth by the view that scientific knowledge is perspectival, and the consequences of this view for how contemporary scientists confront religion. A third theme concerns twentieth-century scientists and philosophers of science who sought to sort out questions of the social responsibilities of science, the social dimensions of science, and the truth of scientific claims.

SPECIFIC TOPICS

- Scientific Perspectivism: An Alternative to Objectivist Realism
- Scientific Neo-Kantianism and Positivism in Germany from 1870–1914
- Naturalism, Pragmatism, and Experimentalism in American Philosophy of Science, 1870–1950
- Scientific Realism and Scientific Socialism in France from Belle Epoque to Cold War
- Bernalism and Approaches to the History and Philosophy of Science in Great Britain
- · Hierarchy and Intention in Scientific Representation
- "Die wissenschaftliche Weltauffassung": Logical Positivism from Austria and Germany to North America, 1920–1950
- Weimar Berlin and Historical Sources of the View of Science as Social Practice
- Politics and Values in the Philosophy of Science of Polanyi, Popper, and Kuhn
- Science without Laws, Realism w/o Truth, Judgment w/o Rationality
- · Analytic Philosophy as Marginal Science
- · Contemporary Scientists Confront Religion



PARTICIPANTS 2009

Bodensteiner Brian, Bosse Daniel, Collina Beatrice, Crystal Lisa, Damböck Christian (guest participant), Dawid Richard (guest participant), De Langhe Rogier, English William, Fleming Eric, Franco Paul, Gakis Dimitrios, Herfeld Catherine, Icen Ilksen N., Konieczny Matthew, Lee Christine Ming-Whey, Lee Clarissa Ai Ling, Limbeck-Lilienau Christoph (guest participant), Lukesch Roland, MacLeod Miles, Melendez Carlos, Michael John, Morag Talia, Nasrin Mehdi, Perfranceschi Linda, Pietrobon Ricardo, Quick Sebastian, Romizi Donata, Salmi Samuli, Schäfer Sebastian, Valadas Maria, Zacharias Sebastian.

Ronald Giere (University of Minnesota, USA)

MaRonald N. Giere is Professor of Philosophy Emeritus as well as a member and former Director of the Center for Philosophy of Science at the University of Minnesota. Prof. Giere is a Past President of the Philosophy of Science Association and a member of the editorial board of the journal Philosophy of Science. His current research focuses on agent-based accounts of models and scientific representation, and on connections between naturalism and secularism

He is the author of Understanding Scientific Reasoning (5th ed., 2006), Explaining Science: A Cognitive Approach (1988), Science Without Laws (1999), Scientific Perspectivism (2006), and editor of Cognitive Models of Science (1992) and Origins of Logical Empiricism (1996).



Mary Jo Nye (Oregon State University, USA)

Mary Jo Nye is Emeritus Horning Professor of the Humanities and Professor of History at Oregon State University. She is a former president of the History of Science Society and received the Society's 2006 Sarton Medal for Lifetime Scholarly Achievement. Her research focuses on the history of the modern physical and chemical sciences, science and politics, and the philosophy of science.

She is editor of the volume on Modern Physical and Mathematical Sciences (2003) in The Cambridge History of Science series, and her most recent book is Blackett: Physics, War, and Politics in the 20th Century (2004). She is completing a book on scientific life and the philosophy of science in the 20th century, with a focus on Michael Polanyi (1891–1976) and his era.



Alan Richardson (University of British Columbia, Canada)

Alan Richardson is Professor of Philosophy and Distinguished University Scholar at the University of British Columbia. His research examines the relations between the history of science and the history of philosophy in the era since Kant. He is currently President of the International Society for History of Philosophy of Science (HOPOS).

His publications include the monograph, Carnap's Construction of the World: The Aufbau and the Emergence of Logical Empiricism (1998) and the anthologies, Origins of Logical Empiricism (1996, co-edited with Ronald N. Giere), Logical Empiricism in North America (2003, co-edited with Gary L. Hardcastle, and The Cambridge Companion to Logical Empiricism (2007, co-edited with Thomas Uebel). His current book project is tentatively entitled, Logical Positivism as Scientific Philosophy.



GUEST LECTURER

Peter Galison (Harvard University, USA)

17. Wiener Kreis Vorlesung / 17th Vienna Circle Lecture as part of VISU:
THE ASSASSIN OF RELATIVITY – FRIEDRICH ADLER AND ALBERT EINSTEIN



The Science of the Conscious Mind

July 5-16, 2010

SUMMARY

It is commonly held that psychology began to be practiced "scientifically" in Leipzig in 1879. We will examine what this means, what the regulative metaphysical assumptions, constitutive ideas and techniques of a science of the mind were and are. In doing so, we will give a comprehensive overview over the science of mind, covering historical aspects, systematic problems, and empirical findings.

With respect to the historical contexts in which the scientific study of the conscious mind emerged, special attention will be dedicated to the contentious status of empirical psychology in turn-of-the century epistemological debates, leading up to important work of Carnap, Neurath, Feigl, Hempel and other members of the Vienna & Berlin Circles on the status of Geisteswissenschaften, the mind-brain relation, testability, and reduction. This work directly influenced empirical psychology, especially B. F. Skinner's Radical Behaviourism, which in turn affected the development of work in analytic philosophy of psychology and mind. This foundational philosophical work will also be connected with contemporary issues on neural correlates & neural identities, explanatory gaps, the hard problem(s) of consciousness, the problems of freedom and responsibility, and the prospects for achieving a mature neurophilosophy. Arguments that even a mature science of the mind cannot address certain important topics like the qualia problem will be evaluated from a systematical and a historical perspective. Skeptical positions with respect to the self and free will will be presented as well as experimental work that bears on these issues (i.e. decision making, intentionality, theory of mind, "mirror neurons"). Consequences of philosophical and empirical work for human self-understanding, the legal system, and everyday life will be discussed.

SPECIFIC TOPICS

- Psychology to be practiced "scientifically"
- · Regulative metaphysical assumptions
- · Constitutive ideas and techniques of a science of the mind
- Comprehensive overview over the science of mind, covering historical aspects, systematic problems, and empirical findings
- Status of empirical psychology in turn-of-the century epistemological debates
- · Vienna & Berlin Circles
- Contemporary issues on neural correlates & neural identities, explanatory gaps, the hard problem(s) of consciousness, the problems of freedom and responsibility, and the prospects for achieving a mature neurophilosophy
- Qualia problem from a systematical and a historical perspective
- The self and free will
- Experimental work that bears on decision making, intentionality, theory of mind, "mirror neurons"
- Consequences of philosophical and empirical work for human self-understanding, the legal system, and everyday life



PARTICIPANTS 2010

Barack David, Beattie Darren, Bermudez Eduardo, Dent Amy, Dunton-Gallagher Clyde, Gindele Nathaniel, Griffith Sean, Hartling Katherine, Hu Jing, Hulsegge Sanne, Kutlu Munir Gunes, Larson Theodore, Limbeck-Lilienau Christoph, Mariscal Carlos, Martin Stephen, Metin Serdar, Michael John, Miller Jason, Pressl Damita, Rossmanith Nicole, Rusu Leonard, Sheikh Salman, Skalski Linda, Stanton Michael, Steenbergen Gordon.

Uljana Feest (Technische Universität Berlin, Germany)

Uljana Feest is Assistant Professor at the Institute for Philosophy, Philosophy of Science, History of Science and Technics of the Technische Universität (TU), Berlin. Her areas of specialization are philosophy of scientific experimentation, philosophy of psychology & neuroscience, history of 19th and 20th century philosophy of science and the history of the human sciences.

Uljana Feest published among others "What Exactly is Stabilized When Phenomena are Stabilized?" (forth-coming); "Hypotheses, everywhere only hypotheses! On some contexts of Dilthey's critique of explanatory psychology" (2007); "Science and Experience – Science of Experience: Gestalt Psychology and the Anti-Metaphysical Project of the Aufbau" (2007); "Operationism in Psychology – What the Debate is About, What the Debate Should Be About" (2005) and "Functional Analysis and the Autonomy of Psychology" (2003).



www.philosophie.tu-berlin.de/menue/mitarbeiter/akademische_mitarbeiterinnen/dr_uljana_feest/

Owen Flanagan (Duke University, USA)

Owen Flanagan is James B. Duke Professor of Philosophy and Professor of Psychology and Neuroscience at Duke University. His work is in the philosophy of psychology, mind, ethics, and comparative philosophy. He has lectured on every continent except Antarctica.

Flanagan has written or edited the following books: The Science of the Mind (1984); 2nd edition (1991); Identity, Character, and Morality: Essays in Moral Psychology, edited with Amelie O. Rorty (1990); Varieties of Moral Personality: Ethics and Psychological Realism (1991); Consciousness Reconsidered (1992); Self Expressions: Mind, Morals, and the Meaning of Life (1996); The Nature of Consciousness edited with Ned Block and Güven Güzeldere (1998); Dreaming Souls: Sleep, Dreams, and the Evolution of the Conscious Mind (1999); Narrative and Consciousness: Literature, Psychology, and the Brain co-edited with Gary Fireman and Ted McVay (2002); The Problem of the Soul: Two Visions of Mind and How to Reconcile Them, Basic (2002); The Really Hard Problem: Meaning in a Material World (2007). http://fds.duke.edu/db/aas/Philosophy/faculty/ojf



Michael Pauen (Humboldt-Universität zu Berlin, Germany)

Michael Pauen is Professor of Philosophy at the Humboldt-Universität zu Berlin and academic director of the Berlin School of Mind and Brain. His research focuses on the philosophy of mind and on the relation between philosophy and neuroscience.

Recent papers: "Feeling Causes" (2006); "Does Free Will Arise Freely" (2003); "Painless Pain" (2000); "Is Type Identity Incompatible With Multiple Realization?" (2003). Books: Was ist der Mensch? Die Entdekkung der Natur des Geistes (2007); Illusion Freiheit? Mögliche und unmögliche Konsequenzen der Hirnforschung (2004); Grundprobleme der Philosophie des Geistes. Eine Einführung (2001). www.michael-pauen.de/



GUEST LECTURER

J. Allan Hobson (Harvard Medical School, USA)

REM SLEEP AND DREAMING: TOWARDS A THEORY OF PROTOCONSCIOUSNESS



The Nature of Scientific Evidence

July 4-15, 2011

SUMMARY

Concern with clear and demonstrable evidence resides at the heart of modern culture and its systems of knowledge. Every well-established group of practitioners seems to have a clear sense of what they count as good evidence, but when we look for a general characterization of evidence and its probative force, answers are difficult to come by. Philosophers, historians, jurists and scientists have all made serious investigations into the nature of evidence. Still, there is neither a widely agreed-upon theory nor a general rule of evidence that applies universally.

In this course we will explore various notions of evidence in various domains of theory and practice. Our program is distinctive in three ways. First, we will provide a broad multidisciplinary inquiry into the nature of evidence, employing the combined resources of philosophy, psychology and history. Second, we will take a detailed look at the philosophical and historical contexts of various concepts of evidence in science, medicine and law. Third, we will make a sustained effort to link up abstract concepts and questions with concrete practices and moments.

SPECIFIC TOPICS

- Philosophical theories of evidence and their problems
- Cognitive approaches to evidential reasoning
- · Causal models in evidential reasoning
- · Legal theories of evidence and their evolution
- · Probabilistic and statistical handling of evidence
- · Evidential reasoning in medicine
- Evidence for public policy and public consumption
- Professionalization, quantification and standardization of evidence
- · Evidence, authority and commitment
- · Social and moral dimensions of evidence
- · Evidence in scientific practice



Participants 2011

Al-Mutairi Fahad, Badia Lynn, Cheng Cindy, Els Christian, Evans Rebecca, Fletcher Samuel, Heilman Amy, Henning Björn, Hernandez Perez Rodolfo Andres, Hu Jing Iris, Kalinina Ekaterina, Kosolosky Laszlo, Kuby Daniel, Lee Clarissa Ai Ling, Lefevere Merel, Mayer Thomas, Nelson Kristopher, Noia Justin, Radjenovic Danka, Ribeiro Feitosa Fernando, Saskaran Neeraja, Seselja Dunja, Stanton Michael, Straßer Christian, Talbert Ronald James, Tscheru Hans-Peter, Vazquez Carmen, Wagner Fabian, Wright Jacob.

Hasok Chang (University of Cambridge, UK)

Hasok Chang is Hans Rausing Professor of History and Philosophy of Science at the University of Cambridge. He received his Ph.D. in philosophy from Stanford University. From 1995 to 2010 he taught at the Department of Science and Technology Studies at University College London. Most of his research falls into two broad categories: general philosophy of science, and the history and philosophy of the physical sciences from the 18th century onward. He is a co-founder of the Society for Philosophy of Science in Practice, a founding member of the international Committee for Integrated History and Philosophy of Science, and an Associate Editor of the British Journal for the History of Science.

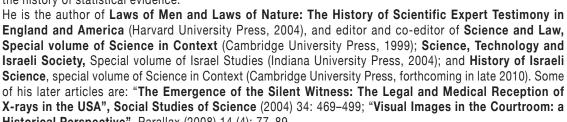


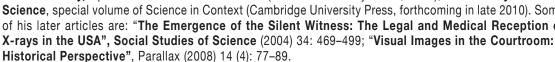
He is the author of Inventing Temperature: Measurement and Scientific Progress (Oxford University Press, 2004), which was a co-winner of the 2006 Lakatos Award, and Is Water H2O? Evidence, Realism and 7 Pluralism (Springer), as well as a number of articles on topics ranging from the philosophy of guantum mechanics to the history of logical positivism. He is also co-editor (with Catherine Jackson) of An Element of Controversy: The Life of Chlorine in Science, Medicine, Technology and War (British Society for the History of Science, 2007).

www.ucl.ac.uk/sts/staff/chang

Tal Golan (University of California, San Diego, USA)

Tal Golan is an Associate Professor of History of Science and Science Studies at UC San Diego. He holds a Ph.D. in History from UC Berkeley. Golan's research has focused on the history of the relations between science and law. Lately he has worked also on the relations between Zionism and science, and on the history of statistical evidence.





http://sciencestudies.ucsd.edu/Faculty/golan.html



David A. Lagnado (University College London, UK)

David A. Lagnado is Senior Lecturer at the Division of Psychology & Language Sciences, University College London. He completed his Ph.D. in philosophy at University College London. His research focuses on the psychological processes that underlie human learning, reasoning and decision-making.

David Lagnado has co-authored Straight Choices: the psychology of decision making (Psychology Press, 2007) with Ben Newell and David Shanks, and published numerous journal articles and book chapters, including "Thinking about Evidence" in Dawid, P., Twining, W., Vasilaki, M. (ed.) Evidence, Inference and Enquiry (British Academy/OUP, forthcoming), "Causal Thinking" in McKay-Illari, P., Russo, F., Williamson, J. (ed.) Causality in the Sciences (Oxford University Press 2010), "Judgments of cause and blame: the influence of intentionality and foreseeability", Cognition, 2008, 108, 754-770, and "The impact of discredited evidence", Psychonomic Bulletin and Review, 2008, 15, 1166-1173.

www.ucl.ac.uk/lagnado-lab/david lagnado.html



GUEST LECTURER

Philip Dawid (University of Cambridge, UK)

EVIDENCE, INFERENCE AND ENQUIRY: TOWARDS AN INTEGRATED SCIENCE OF EVIDENCE



Applied Science. Historical, Epistemological, and Institutional Characteristics

July 2-13, 2012

SUMMARY

In the course of the twentieth century, science became increasingly intertwined with technology and matters of social relevance. As a result, science is viewed today as an essentially practical endeavor. Science and technology appear inextricably interwoven with one another. This development is viewed in many quarters as a fundamental reorientation of science and its relationship with technology. Science in the context of practice is assumed to operate under conditions significantly different from the rules and regulations of traditional academia.

There are three overlapping themes in the course that deal with the topic from a historical, philosophical, and sociological perspective, respectively. The issue involves methodological and epistemological questions concerning research in the service of technological development as well as sociological questions about the institutional characteristics such research acquires. These questions give rise to various contrasts and oppositions such as commissioned research versus research in the public interest, epistemic research versus application-oriented research, research under the aegis of the linear model versus applied research

SPECIFIC TOPICS

- Nationalism, Commercialism, and Popularization (1750–1840)
- Utilitarianism, Positivism, and Victorian Society (1840–1900)
- The Professionalization of Science, Logical Empiricism, and the Rhetoric of Pure Science (1900–1950)
- National Politics and the Commodification of Science (1950–2000)
- Beyond 2000: A Reassessment of the Concept of Science in the Public Interest
- · Values and Objectivity in Science
- Theories for Use: The conceptual structure of research in the context of application
- On the Question Dynamics of Research: Modes of Finding and Losing Research Topics in Science and Technology
- Science in the Grip of the Economy? Conditions of applicationoriented research
- Epistemic and Social Conditions of Scientific Expertise
- Knowledge, Politics and Commerce: The ethical dimension
- · The self-referential direction of research
- · Institutional patterns for basic and applied research
- Origins of the linear model and the innovation paradigm
- National Innovation Systems the concept, comparative perspective
- · Science funding or innovation policy?



PARTICIPANTS 2012

Aichner Christo, Antoniou Aikaterini, Badia Lynn, Bermudez Barrera Eduardo, Bezari Christina, Campis Rene, Caniglia Guido, Carrington Christopher, English William, Fernande Pinto Manuela, Garau Rodolfo, García Cruz Juan Carlos, Gawne Richard, Hamid Nabeel, Hernandez Perez Rodolfo, Jukola Saana, Kopsky Georg, Kosolosky Laszlo, Lindemann Anna, McCoy Casey, Mevissen Natalie, Nasrin Mehdi, Parrish Sean, Reschke Carl Henning, Seselja Dunja, Sigmund Karolina, Stuur Sanne, Vos Shoko, Wentland Alexander, Wuest Amy.

Martin Carrier (Bielefeld University)

Martin Carrier is Professor of Philosophy at Bielefeld University. He received his Ph.D. in philosophy from the University of Münster and earned his habilitation at the University of Konstanz. His chief area of work is the philosophy of science, in particular, historical changes in science and scientific method, theory-ladenness and empirical testability, intertheoretic relations and reductionism, and presently methodological issues of application-oriented research. Carrier is a member of the "German Academy of Science Leopoldina," the "Mainz Academy of Sciences, Humanities and Literature," and the "Academia Europaea." He was awarded the Leibniz Prize of the German Research Association (DFG) for 2008.



His publications include *The Completeness of Scientific Theories*. On the Derivation of Empirical Indicators within a Theoretical Framework: The Case of Physical Geometry (Kluwer Academic Publishers 1994); Nikolaus Kopernikus (Beck 2001); Wissenschaftstheorie: Zur Einführung (Junius 2006, rev. 2008); Raum-Zeit (de Gruyter 2009).

www.uni-bielefeld.de/%28en%29/philosophie/personen/carrier/

Rose-Mary Sargent (Merrimack College)

Rose-Mary Sargent is Professor of Philosophy at Merrimack College and Editor-in-Chief of *HOPOS: The Journal of the International Society for the History of Philosophy of Science*. She earned her Ph.D. in Philosophy from the University of Notre Dame. Her research focuses on experimental practices from the 17th century to the present. Currently she is working on a study of Francis Bacon's vision of how experimental science would lead to useful knowledge that would advance the common good and how the inherent tensions within this program were revealed



In addition to numerous articles, she is the author of *The Diffident Naturalist: Robert Boyle and the Philosophy of Experiment* (University of Chicago Press 1995), and editor of *Selected Philosophical Works of Francis Bacon* (Hackett 1999).

http://warrior.merrimack.edu/academics/liberal_arts/philosophy/MeetFacultyStaff/Pages/fac_RSargent.aspx



Peter Weingart (Bielefeld University)

Peter Weingart is Professor Emeritus of Sociology (sociology of science and science policy) at Bielefeld University, Germany. He was director of the Institute for Science and Technology Studies (IWT) and director of the Institute of Interdisciplinary Research (ZiF 1988–1994). He is a member of the Berlin-Brandenburg Academy of Sciences and the Academy of Engineering Sciences (acatech) in Germany.

He is managing editor of the *Yearbook Sociology of the Sciences* and since 2008 he is editor-in-chief of *Minerva*. He has published numerous articles and books in the sociology of science and science studies, among them *Metaphors and the Dynamics of Knowledge* (with S. Maasen, Routledge 2000), *Die Stunde der Wahrheit?* (Velbrück Wissenschaft 2001), *Die Wissenschaft der Öffentlichkeit* (Velbrück Wissenschaft 2005). www.uni-bielefeld.de/iwt/personen/weingart/



GUEST LECTURER

William Butz (IIASA, Laxenburg)



Climate Studies

July 1-12, 2013 in Vienna

SUMMARY

It is commonly held that psychology began to be practiced "scientifically" in Leipzig in 1879. We will examine what this means, what the regulative metaphysical assumptions, constitutive ideas and techniques of a science of the mind were and are. In doing so, we will give a comprehensive overview over the science of mind, covering historical aspects, systematic problems, and empirical findings.

With respect to the historical contexts in which the scientific study of the conscious mind emerged, special attention will be dedicated to the contentious status of empirical psychology in turn-of-the century epistemological debates, leading up to important work of Carnap, Neurath, Feigl, Hempel and other members of the Vienna & Berlin Circles on the status of Geisteswissenschaften, the mind-brain relation, testability, and reduction. This work directly influenced empirical psychology, especially B. F. Skinner's Radical Behaviourism, which in turn affected the development of work in analytic philosophy of psychology and mind. This foundational philosophical work will also be connected with contemporary issues on neural correlates & neural identities, explanatory gaps, the hard problem(s) of consciousness, the problems of freedom and responsibility, and the prospects for achieving a mature neurophilosophy. Arguments that even a mature science of the mind cannot address certain important topics like the qualia problem will be evaluated from a systematical and a historical perspective. Skeptical positions with respect to the self and free will will be presented as well as experimental work that bears on these issues (i.e. decision making, intentionality, theory of mind, "mirror neurons"). Consequences of philosophical and empirical work for human self-understanding, the legal system, and everyday life will be discussed.

SPECIFIC TOPICS

- Psychology to be practiced "scientifically"
- · Regulative metaphysical assumptions
- · Constitutive ideas and techniques of a science of the mind
- Comprehensive overview over the science of mind, covering historical aspects, systematic problems, and empirical findings
- Status of empirical psychology in turn-of-the century epistemological debates
- Vienna & Berlin Circles
- Contemporary issues on neural correlates & neural identities, explanatory gaps, the hard problem(s) of consciousness, the problems of freedom and responsibility, and the prospects for achieving a mature neurophilo sophy
- Qualia problem from a systematical and a historical perspective
- The self and free will
- Experimental work that bears on decision making, intentionality, theory of mind, "mirror neurons"
- Consequences of philosophical and empirical work for human self-understanding, the legal system, and everyday life



PARTICIPANTS 2013

Baldissera Pacchetti Marina, Barbosa Anna Carolina, Branecky Carolyn, Brumble Kimberly, Hannah Dehlia, Hernandez Rodolfo, Kigar Samuel, Kosoloky Laszlo, Lusk Greg, Motrenko Jakub, Panhans Matthew, Putilin Dimitri, Sconfienza Umberto Mario, Shah Miral, Strauss Martin, Vahl Jessica, Vezer Martin.

Jim Fleming (Colby College, Maine)

Jim Fleming (B.S. astronomy Penn State; M.S. atmospheric science Colorado State; Ph.D. history Princeton) is professor of science, technology, and society at Colby College, Maine. He is a fellow of the American Association for the Advancement of Science and the American Meteorological Society, founder and first president of the International Commission on History of Meteorology, and series editor of Palgrave Studies in the History of Science and Technology. Jim's books include Meteorology in America, 1800–1870 (Johns Hopkins, 1990), Historical Perspectives on Climate Change (Oxford, 1998), The Callendar Effect (AMS, 2007), and Fixing the Sky (Columbia, 2010). His new research involves a history of the emergence of atmospheric science and a biography of the "wild spirit" we now call carbon dioxide. http://www.colby.edu/profile/jfleming



Roman Frigg (London School of Economics and Political Science)

Roman Frigg is a Reader (Associate Professor) in Philosophy at the London School of Economics, Director of the Centre for Natural and Social Science (CPNSS), and Co-Director of the Centre for the Analysis of Time Series (CATS) at LSE. He holds a PhD in Philosophy from the University of London and MSc's both in theoretical physics and philosophy from the University of Basel, Switzerland. His main research interests are in general philosophy of science and philosophy of physics. He has published papers on scientific modelling, quantum mechanics, the foundations of statistical mechanics, randomness, chaos, complexity theory, probability, computer simulations, and climate modelling. Further information can be found on www.romanfrigg.org.



Wendy Parker (Ohio University)

Wendy Parker is Associate Professor of Philosophy at Ohio University. She received her Ph.D. in History and Philosophy of Science from the University of Pittsburgh. Her research focuses on the epistemology and methodo-logy of computer simulation modeling, especially weather and climate modeling. She is particularly interested in how complex computer simulation models can be evaluated, how they can provide evidence for hypotheses about real-world target systems, and how they are used in "assimilating" traditional observational data. She is also interested in the roles of science in public policy. Her papers have appeared in a variety of journals, including Synthese, Philosophy of Science, and Studies in History & Philosophy of Modern Physics.



http://www.ohio.edu/people/parkerw/

GUEST LECTURER

Angela Kallhoff (University of Vienna)



Humans/Animals. A Contested Boundary

July 7-18, 2014 in Vienna

SUMMARY

What are our cultural, ethical, biological, and historical relationships to the non-human animals that inhabit the planet with us? How have our perceptions of the similarities and differences between humans and animals changed over time, and what lies ahead? Claude Lévi-Strauss's famous observation that "animals are good to think with" becomes ever more potent when viewed in terms of the different ways that the human/animal boundary has been constructed in different socio-historical contexts. This course will engage with historical, philosophical, political and socio-logical dimensions of human-animal interactions as well as the epistemology of the sciences used to study animals.

SPECIFIC TOPICS

- The human-animal boundary from Descartes to Darwin to the present
- Anthropomorphism
- · The study of animal behavior
- · Animals in institutions (zoos and labs)
- · Wild animals, domestic animals, pets and vermin
- · Diseases crossing the human-animal boundary
- Humans and other primates
- Aggression, gender, sexuality, and parenting in animals and humans
- Archaezoology
- · Teaching courses in human-animal interactions



PARTICIPANTS 2014

Hunter Bandy, Alejandro Boucabeille, Nicole Caunter, Chloé de Canson, Felix Eickelbeck, Rebecca Evans, Floor Haalboom, Kathryn Heintzman, Aleksandra Hernandez, Adrienne Krone, ChiaHua Lin, Emelin Miller, Markus Nemeth, Janneke Smeele, Somayeh Tohidi, Ronald Villa, Joseph Wu, Nicholas Zautra.

Richard W. Burkhardt (University of Illinois)

Richard W. Burkhardt, Jr. (PhD, History of Science, Harvard, 1972) is Professor of History Emeritus at the University of Illinois, Urbana-Champaign. He is the author of *The Spirit of System: Lamarck and Evolutionary Biology* (Harvard 1977) and *Patterns of Behavior: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology* (Chicago 2005) (winner of the 2006 Pfizer Prize). His research focuses on the history of evolutionary theory, the development of biological studies of animal behavior, and the history of zoos. He is currently writing a scientific and cultural history of the menagerie of the Muséum d'Histoire Naturelle in Paris. For additional publications see his website: www.richardburkhardt.com



Susan D. Jones (University of Minnesota)

Susan D. Jones is Professor and Director of the Program in the History of Science and Technology, and Professor in the Department of Ecology, Evolution and Behavior, at the University of Minnesota (Minneapolis USA). She is also a veterinarian and serves as Co-President of the World Association for the History of Veterinary Medicine (www.wahvm.org). Her publications include the books *Valuing Animals* (2003) and *Death in a Small Package* (2010) and several articles about the history of human-animal relationships and zoonotic disease. For further information see her faculty website,



and the website for the Program in the History of Science and Technology, www.hstm.umn.edu



Georgina M. Montgomery (Michigan State University)

Georgina M. Montgomery is an Assistant Professor at Michigan State University in both Lyman Briggs College and the Department of History. She also co-chairs the History of Science Society's Women Caucus and hosts a women in science digital collection. Her publications include the edited volume Making Animal Meaning (2011), book chapters on teaching animal histories and gender and evolution, and articles on the history of primatology in Endeavour and the Journal for the History of Biology. Further information can be found on her faculty website

http://www.lymanbriggs.msu.edu/faculty/bios/user.cfm?UserID=72



GUEST LECTURER

Mitchell Ash (University of Vienna) Herwig Grimm (University of Vienna) Tom Tyler (Oxford Brookes University)







USS-SWC 2015

The Computational Turn. Simulation in Science

July 6-17, 2015 in Vienna

SUMMARY

Computational methods now play a central role in many areas of science and engineering ranging from astrophysics through the social sciences to the design and production of artifacts. Computational chemistry, computational biology, computational neuro-science, artificial life, artificial markets - the list is long and growing. Although not everything about these methods is revolutionary, they have nonetheless had a revolutionary impact of many aspects of our lives, from the way we design aircraft to trading in financial markets. Consequently they require us to rethink central topics in the philosophy and sociology of science and technology, such as the limits of human knowledge, the distribution of expertise in research teams, whether these methods are truly cross-disciplinary and if so what conclusions should we draw from that, and the relation between simulations and experiments. In a number of areas, such as complex micro-economic systems as well as high energy physics, the methods hold out the promise of greatly expanding the scope of what can be studied. Some emphasis will be given to the history of these methods and their origins in specific disciplines but special attention will be paid to the current use and future development of computational science including the role of massive data sets, the challenges of transparency, differences in modeling techniques between the natural and social sciences, and the relation between technological and scientific advances. The program is designed to appeal to scholars from a broad range of disciplines, and some sessions will be led by more than one lecturer to take advantage of their different but overlapping areas of expertise.

SPECIFIC TOPICS

- Computational approaches in natural and social sciences
- Simulations and models: exploration, explanation and prediction
- Computational models versus experimentation
- Idealization and representation
- Model validation and verification
- · Micro foundations in natural and social sciences
- · Social epistemology and network analysis
- History of the computational turn
- Challenges: replication, transparency Data
- Epistemological consequences of the computational turn



PARTICIPANTS 2015

Basafa Nader, Bermudez Barrera Eduardo, Boesch Brandon, Branch-Smith Teresa 'Ty,' Campis Rene, Cantalamessa Elizabeth, Carrignon Simon, Durán Juan, Faries Frank, Guralp Genco, Haber Saskia Regina, Hashemi Hamed, Krismer Raffael, Linsbichler Alexander, Lucas Samuel, Manassevitz Enrique, Mayerhoffer Daniel, Oprea Alexandra, Prentner Robert, Rantasa Peter, Sanches de Oliveira Guilherme, Scheller Simon, Turunen Petri, Visser Henrik Roeland, Wen Tusi, Worliczek Lucia.

Rainer Hegselmann (University of Bayreuth)

Rainer Hegselmann is professor of philosophy at the University of Bayreuth. His work focuses on the development of agent based models of fundamental social dynamics as, for instance, the formation of networks of mutual support, the evolution of morality, and the dynamics of opinions. Together with Ulrich Krause he developed the so called bounded-confidence model of opinion dynamics that became very influential over the last decade and inspired a huge number of extensions and applications in different fields. Website: www.modus.uni-bayreuth.de/de/team/Hegselmann Rainer/



Paul Humphreys (University of Virginia)

Paul Humphreys is Commonwealth Professor of Philosophy at the University of Virginia and was a founding member of its cognitive science program. He has written extensively on computational science and related areas, and has associated interests in emergence, the role of data in contemporary science, and statistical models. His publications include *Extending Ourselves* (Oxford, 2004) and the edited anthology *Emergence* (with Mark Bedau, MIT Press, 2008).



Further information can be found on his website at http://people.virginia.edu/~pwh2a/

Margaret Morrison (University of Toronto)

Margaret Morrison is professor of philosophy at the University of Toronto. Her work addresses a number of interrelated issues in the history and philosophy of science – specifically the relation between modelling, experimentation and simulation, the nature of emergence in physics, and the ways in which mathematical frameworks can deliver information about concrete systems. Her publications include *Models as Mediators: Essays in the Natural and Social Sciences* (with M. Morgan) (Cambridge, 1999), *Unifying Scientific Theories: Physical Concepts* and *Mathematical Structures* (Cambridge, 2000) and *Reconstructing Reality: Models, Mathematics and Simulation* (Oxford, 2014, forthcoming).



GUEST LECTURER

Kevin Zollmann (Carnegie Mellon University)



USS-SWC 2016

Science, Values, and Democracy?

July 4 -15, 2016 in Vienna

SUMMARY

Many controversial public issues involve implicit assumptions about the relation of science, values, and democracy. Should climate scientists publicly advocate specific climate policies? Should lay citizens have a say in the allocation of public funds for science and technology? Should governments legally require certain vaccinations, or ban certain areas of research? How should social values shape scientific research in genetics, public health, and many other fields? Public debates over issues like these echo a long history of conflicting views in political theory and the history, sociology, and philosophy of science. In all of these fields, the past fifty years have seen a shift away from foundationalist or essentialist approaches and toward an emphasis on the social and material context of scientific and political practices. The ideal of value-free science remains popular in public life, but most scholars now agree that science is shaped-often properly so-by social values, commercial pressures, and political decisions. Many interpreters still assume either that science and democracy invariably conflict or that they invariably reinforce each other, but a more detailed look reveals that the relation between them has varied enormously across time and place. And whereas many commentators still view democracy narrowly in terms of popular elections, recent scholarship shows that social institutions and material practices of all kinds-including many associated with science and technology-may become sites of democratic politics. This summer school will examine these developments in scholarship and public life, while also providing a stimulating context in which participants can develop their own views on the specific topics that most interest them.

SPECIFIC TOPICS

- · Roles of values in science
- · Historical relations of science and democracy
- · Public engagement in sociotechnical controversies
- · Race, gender, and science
- · Science and religion in democracies
- · Politics of expert advice
- · Public assessment of scientific expertise
- Science communication in democratic contexts
- · Universities and public life



PARTICIPANTS 2016

Asadi Torang, Bagg Samuel, Bakdur Eser, Bandy Hunter, Cukrov Smilja, Cupples Laura, Dewulf Fons, Fazeli Faeze, Fine Renaud, Frühstückl Robert, Gülsaçan Murat, Haber Saskia, Hirsch Shana, Kołtun Aleksandra, Manafu Alexandru, Mohammadian Mousa, Oprea Alexandra, Rachar Matthew, de la Riva Miguel, Roberts Aaron, Spießberger Andreas, Szot Eric, Tranvik Isak, Veigl Sophie Juliane, Vessonen Elina, Visser Henrik Roeland, Ward Zina, Zhang Fan.

Mark B. Brown (California State University, Sacramento)

Mark B. Brown is a professor in the Department of Government at California State University, Sacramento. His work addresses questions of democratic theory and practice with regard to public controversies over science and technology. He is the author of *Science in Democracy: Expertise, Institutions, and Representation* (MIT Press, 2009), and various publications on the politics of expertise, political representation, bioethics, climate change, and related topics. He teaches courses on modern and contemporary political theory, democratic theory, and the politics of science, technology, and the environment. http://www.csus.edu/faculty/B/brownm/index.html



Heather Douglas (University of Waterloo, Ontario)

Heather Douglas is the Waterloo Chair in Science and Society and Associate Professor in the Department of Philosophy at the University of Waterloo, Ontario, Canada. She is the author of *Science, Policy, and the Value-Free Ideal* (University of Pittsburgh Press, 2009) as well as numerous articles. Her work focuses on the role of values in science, science policy, and science in democratic societies and has been supported by the National Science Foundation and the Social Science and Humanities Research Council of Canada. She is a Fellow of the Institute for Science, Society, and Policy at the University of Ottawa and a Professor of the Balsillie School of International Affairs, where she convenes the Science & Health Policy Research Cluster.



https://uwaterloo.ca/philosophy/people-profiles/heather-douglas

https://uwaterloo.academia.edu/HeatherDouglas

Andrew Jewett (Harvard University)

Andrew Jewett is Associate Professor of History and of Social Studies at Harvard University. The author of *Science, Democracy, and the American University: From the Civil War to the Cold War* (Cambridge University Press, 2012), he has also written several other articles and chapters tracing interactions between the scientific disciplines, public debates, and political institutions, as well as engagements between science and religion. He is especially interested in claims about the impact of science on society and the circulation of arguments and concepts between the public sphere and the increasingly specialized natural and social sciences.



http://history.fas.harvard.edu/people/andrew-jewett

GUEST LECTURER

Alexander Bogner (Austrian Academy of Sciences)



USS-SWC 2017

Genomics, Philosophy, Ethics, Policy

July 3 -14, 2017

SUMMARY

Over the last two decades, genomics has emerged as a powerful site for not just re-configuring understandings and enactments of life, but also for understanding how these conceptions and enactments form in tandemwith modes of ordering and governing lives. The two-week course explores conceptual innovations that draw these co-productive processes into view, as well as the histories and philosophies that deepen our understandings of not just genomics, but also our ever elusive efforts to make sense of life. Specific Topics

SPECIFIC TOPICS

- · Roles of values in science
- · Historical relations of science and democracy
- · Public engagement in sociotechnical controversies
- · Race, gender, and science
- · Science and religion in democracies
- · Politics of expert advice
- · Public assessment of scientific expertise
- · Science communication in democratic contexts
- · Universities and public life



PARTICIPANTS 2017

Akyüz Hüseyin Kaya, Brecevic Charlene, Ciranna Serena, Coffin Amy, Gillette Kinley, Goisauf Melanie, Kornienko Aleksandra, Mayer Karl-Heinz, Neal Jacob, Oestreich Elizabeth, Paier Karoline, Rose Alex, Saluja Kanwaljeet Kaur, Valverde Vida Mia, Vitti-Rodrigues Mariana, Wade Nathaniel.

Robert Cook-Deegan (Duke University, Durham)

Robert Cook-Deegan (aka BCD) is a professor in the School for the Future of Innovation in Society at Arizona State University, and a researcher in ASU's Consortium for Science, Policy & Outcomes. He was previously the founding director of the Center for Genome Ethics, Law & Policy in Duke's Institute for Genome Sciences & Policy, 2002–2012, and remained at Duke through June 2016. He previously worked for eleven years at the National Academies of Science, Engineering and Medicine, a year at the National Center for Human Genome Research at the National Institutes of Health and six years at the Office of Technology Assessment, US Congress. He got his MD from the University of Colorado in 1979 and his BA in chemistry (magna cum laude) from Harvard in 1975. He is the author of The Gene Wars: Science, Politics, and the Human Genome and an author on over 250 other publications.



Website: https://globalhealth.duke.edu/people/faculty/cook-deegan-robert

Paul E. Giffiths (University of Sydney)

A philosopher of science with a focus on genetics and development, Paul Griffiths is Professor in the Department of Philosophy, University of Sydney and a Domain Leader at the Charles Perkins Centre, a major research institute of the university devoted to interdisciplinary approaches to lifestyle-related disease. He is a Fellow of the American Association for the Advancement of Science, and of the Australian Academy of the Humanities. From 2011–13 he was President of the International Society for History, Philosophy and Social Studies of Biology.



Jennifer Reardon (University of California, Santa Cruz)

Jenny Reardon is Professor of Sociology and Director of the Science and Justice Research Center at University of California, Santa Cruz. She is also a Visiting Professor in the Department of Global Heath and Social Medicine at King's College in London. Her research draws into focus questions about identity, justice and democracy that are often silently embedded in scientific ideas and practices, particularly in modern genomic research. Her training spans molecular biology, the history of biology, science studies, feminist and critical race studies, and the sociology of science. She is the author of Race to the Finish: Identity and Governance in an Age of Genomics (Princeton University Press, 2005) and The Postgenomic Condition: Ethics, Justice, Knowledge After the Genome (forthcoming with Chicago University Press).



Website: http://scijust.ucsc.edu/directors/reardon-full-bio/

Website: http://sociology.ucsc.edu/faculty/singleton.php?&singleton=true&cruz_id=reardon1

GUEST LECTURER

William English (Georgetown University, Washington, DC)

USS-SWC 2018

Thought Experiments

July 2-13, 2018 in Vienna

SUMMARY

Are thought experiments epistemic miracles that enable us to learn about the world merely by reflections from the comfort of our arm chairs? Or are the merely picturesque devices for clarifying and revealing to us what we already knew? Or should we conceive of their role in some other way. This summer schools will examine thought experiments and their role in science. It will consider general problems of principle concerning thought experiments as well as the place and function of exemplar thought experiments drawn from physical sciences.

SPECIFIC TOPICS

- · Typology of thought experiments
- Function of thought experiments
- · Epistemology of thought experiments
- · The content and utility of particular thought experiments



PARTICIPANTS 2018

Barthuly Joshua, Benack Carolin, Biłgorajski Piotr, Bobadilla Hernan, Cabuto García Jéssica, von Gierke Robindro, Gilmintinov Roman, Graf Simon, Haddad Jamil, Linsbichler Alexander, Maestro Silvina, Makovec Dejan, Mendie Patrick, Mettini Maria Guadalupe, Murphy Alice, Pisano Niccolò Aimone, Richard Jérôme, Rua Fernando, Rydin Thor, Simsek Eren, Tasdan Ismail Ufuk, Whyte Jennifer, Su Yuxin.

James Robert Brown (University of Toronto)

James Robert Brown is a Professor of Philosophy at the University of Toronto. His interests include a wide range of topics in the philosophy of science and mathematics: thought experiments, foundational issues in mathematics and physics, visual reasoning, and issues involving science and society, such as the role of commercialization in medical research. His books include: The Rational and the Social (Routledge 1989), The Laboratory of the Mind: Thought Experiments in the Natural Science (Routledge 1991/2010), Smoke and Mirrors: How Science Reflects Reality (Routledge 1994), Philosophy of Mathematics: An Introduction to the World of Proofs and Pictures (Routledge 1999/2008), Who Rules in Science: A Guide to the Wars (Harvard 2001), Platonism, Naturalism and Mathematical Knowledge (Routledge 2012), and most recently, he co-edited (with Stuart and Fehige) The Routledge Companion to Thought Experiments. He has been elected to the Royal Society of Canada, the German Academy of Sciences (Leopoldina), and L'Académie Internationale de Philosophie des Sciences. In the face of all evidence to the contrary, he advocates a Platonic account of thought experiments.



Website: http://www.chass.utoronto.ca/~jrbrown/index.htm

Elke Brendel (University of Bonn)

Elke Brendel is a Professor of Philosophy and Chair of Logic and Metaphysics at the University of Bonn, Germany. She has published numerous books and articles on topics in logic, epistemology, philosophy of language, metaphysics, and meta-philosophy. She has worked on logical and semantic paradoxes, theories of truth and knowledge, epistemic contextualism and relativism, and on semantic and epistemic aspects of disagreement. Her main research interests also include the study of philosophical and scientific thought experiments. In particular, she has worked on the logical structure of thought experiments and on the question of how to rationally assess the success and failure of thought experiments.



Website: https://www.philosophie.uni-bonn.de/de/personen/professoren/prof.-dr.-elke-brendel

John D. Norton (University of Pittsburgh)

John D. Norton is Distinguished Professor of History and Philosophy of Science at the University of Pittsburgh. He is a past Chair of his department and a past Director of the Center for Philosophy of Science at the University of Pittsburgh. He has worked extensively in the history of relativity theory and gave the first analysis of Einstein's "Zurich Notebook," in which Einstein preserved the private calculations that led him to general relativity. He has also worked on general topics in philosophy of space and time, including the "hole argument" against spacetime substantialism. He has mounted an extended historical and philosophical rebuttal of the present consensus that there are deep connections between the abstract notion of information and the physical quantity of thermodynamic entropy. In general philosophy of science, he defends a "material theory of induction" according to which there are no universal rules of inductive inference. Rather, inductive inferences are warranted locally by facts in the pertinent domain. In the face of all evidence to the contrary, he has elaborated and defended a view of thought experiments as merely picturesque argumentation.



Website: http://www.pitt.edu/~jdnorton/jdnorton.html

GUEST LECTURER

Mauricio Suárez (Complutense University Madrid)



USS-SWC 2019 · Preview

Philosophy and Psychiatry

July 1-12, 2019 in Vienna

SUMMARY

By its very nature, psychiatry - the medical specialism devoted to mental healthcare - raises as many conceptual as empirical questions. The philosophy of psychiatry is a rapidly emerging field which draws broadly on philosophical traditions centrally analytic philosophy and phenomenology - to address a range of questions as broad as the demands made on psychiatry to address problems of human suffering, distress and disorder. It is also an area where philosophical methods, accounts and theories can be applied to and thus tested against psychiatric and psychopathological phenomena. But at its heart lies the question of whether, since psychiatry sees itself as part of medicine, the medical conceptualization of illness and disease can be articulated in such a way that it properly applies to the distinct 'problems of living' that psychiatry addresses in response to the crisis of legitimacy often raised. This summerschool will address a number key questions which impact on mental health care.

SPECIFIC TOPICS

- The concept of mental disorder
- · Psychiatric classification
- The role of values in psychiatry
- The roles of explanation and understanding, including idiographic and narrative Understanding in psychiatry
- Delusions
- · Culture bound syndromes
- · Social epistemology
- Recovery

Rachel Cooper (Lancaster University)

Rachel Cooper is Professor of History and Philosophy of Science at Lancaster University, UK. Her research focuses on conceptual problems around psychiatric classification, and on understanding concepts of disorder and health. Her most recent book, Diagnosing the Diagnostic and Statistical Manual of Mental Disorders (Karnac, 2014), examines issues with the DSM-5, the latest edition of the classification of mental disorders published by the American Psychiatric Association. Her earlier monograph Classifying Madness (Springer, 2005) also concerns philosophical problems with psychiatric classification. She is also very interested in problems having to do with the concept of disorder, and is trying to work out what makes a condition count as a disorder, as opposed to a moral failing, or normal variation. She has written widely on this problem, and hopes to finish off a book on the issue in the next couple of years. Her other major publications include Psychiatry and the Philosophy of Science (2007, Acumen) which examines the ways in which psychiatric science is like and unlike more established sciences.



Dominic Murphy (The University of Sydney)

Dominic Murphy studied philosophy at the University of Dublin and University College London, before obtaining a PhD from Rutgers under the supervision of Stephen Stich. He was a Philosophy-Neuroscience-Psychology postdoc at Washington University in St. Louis, before becoming assistant Professor pf Philosophy at Caltech. In 2008 he moved to Sydney as Senior lecturer, becoming an Associate Professor and Head of the History and Philosophy of Science Department in 2012. Currently, he is director of the Sydney Centre for the Foundations of Science. He has held visiting fellowships at the Pittsburgh HPS centre and the Université Francois Rabelais, Tours. He is the author of Psychiatry in the Scientific Image (MIT Press 2006) and the co-editor of Stich and His Critics (Blackwell 2009), as well as papers in philosophy oif psychiatry, philosophy of medicine, moral psychology and philosophy of mind.



Website: https://sydney.edu.au/science/people/dominic.murphy.php

Tim Thornton (University of Central Lancashire)

Tim Thornton is Professor of Philosophy and Mental Health at the University of Central Lancashire. As well as contemporary philosophy of thought and language, his research concerns conceptual issues at the heart of mental health care. He has published research papers and chapters on clinical judgement, idiographic and narrative understanding, the interpretation of psychopathology and reductionism and social constructionism in psychiatry. He is author of Essential Philosophy of Psychiatry (OUP 2007), Wittgenstein on Language and Thought (EUP 1998), John McDowell (Acumen 2004) and co-author of the /Oxford Textbook of Philosophy and Psychiatry (OUP 2006) and Tacit Knowledge (Acumen 2013). He is an editor of the Oxford Handbook of Philosophy and Psychiatry (OUP 2014) and Senior Editor of the journal Philosophy, Psychiatry and Psychology. With Gloria Ayob, he runs a Philosophy and Mental Health distance learning teaching postgraduate programme at the University of Central Lancashire.



GUEST LECTURER

Raffaella Campaner (University of Bologna)

USS-SWC 2020 · Preview

Representation in Art and Science

July 6-17, 2020 in Vienna

MAIN LECTURERS

Dominic Lopes (University of British Columbia) Chiara Ambrosio (University College London) Angela Breitenbach (University of Cambridge)

USS-SWC 2021 · Preview

Counterfactual History, History of Science and Historical Science

July 5-16, 2021 in Vienna

2001 - 201817 Years VISU · USS-SWC

VISU 2001

Unity and Plurality in Science

Main Lecturers: Don Howard (University of Notre Dame)

Elliott Sober (University of Wisconsin)

Guest Lecturer: Brigitte Falkenburg (University of Dortmund)

Assis. Lecturer: Christopher Hitchcock (California Institute of Technology)

David J. Stump (University of San Francisco)

VISU 2002

Mind and Computation

Main Lecturers: Michael Hagner (Max Planck Institute for the History

of Science, Berlin)

Brian P. McLaughlin (Rutgers University, New Brunswick)

Guest Lecturer: Anton Zeilinger (University of Vienna) Assis. Lecturer: Güven Güzeldere (Duke University)

Paul Ziche (Bayerische Akademie der Wissenschaften)

VISU 2003

Biological and Cosmological Evolution

Main Lecturers: Karl Sigmund (University of Vienna)

Robert M. Wald (University of Chicago) Eörs Szathmáry (Eötvös Loránd University)

Assis. Lecturer: Daniel Holz (University of California, Santa Barbara)

VISU 2004

The Quest for Objectivity

John Beatty (University of British Columbia) Lecturers:

Michael Friedman (Stanford University) Helen Longino (University of Minnesota)

VISU 2005

Chance and Necessity

Main Lecturers: Theodore M. Porter (University of California, Los Angeles)

Wolfgang Spohn (University of Konstanz)

Assis. Lecturer: Deborah Coen (Harvard University)

Franz Huber (University of Konstanz)

VISU 2006

Philosophy and Economics

Main Lecturers: Geoffrey Brennan (Duke University) Hartmut Kliemt (University of Duisburg) Guest Lecturer: Rainer Hegselmann (University of Bayreuth)

Assis. Lecturer: Bernd Lahno (University of Duisburg)

VISII 2007

Consensus in Science

Main Lecturers: Naomi Oreskes (University of California, San Diego) Miriam Solomon (Temple University, Philadelphia)

Andrzej Wróblewski (Warsaw University) Guest Lecturer: Keith Lehrer (University of Arizona, Tucson)

History and Philosophy of the Biomedical Sciences

Main Lecturers: Rachel A. Ankeny (University of Adelaide) Bernadino Fantini (University of Geneva) David Wootton (University of York)

Guest Lecturer: Keith Wailoo (Rutgers University)

VISU 2009

The Culture of Science and Its Philosophy

Main Lecturers: Ronald Giere (University of Minnesota) Mary Jo Nye (Oregon State University)

Alan Richardson (University of British Columbia)

Guest Lecturer: Peter Galison (Harvard University)

VISU 2010

The Science of the Conscious Mind

Main Lecturers: Uliana Feest (Technische Universität Berlin)

Owen Flanagan (Duke University)

Michael Pauen (Humboldt-Universität zu Berlin)

Guest Lecturer: J. Allan Hobson (Harvard Medical School)

VISU 2011

The Nature of Scientific Evidence

Main Lecturers: Hasok Chang (University of Cambridge)

Tal Golan (University of California, San Diego) David Lagnado (University College London)

Guest Lecturer: Philip Dawid (University of Cambridge)

VISU 2012

Applied Science.

Historical, Epistemological, and Institutional Characteristics

Main Lecturers: Martin Carrier (Bielefeld University)

Rose-Mary Sargent (Merrimack College) Peter Weingart (Bielefeld University)

Guest Lecturer: William Butz (IIASA, Laxenburg)

VISU 2013 Climate Studies

Main Lecturers: Jim Fleming (Colby College)

Roman Frigg (London School of Economics)

Wendy Parker (Ohio University)

Guest Lecturer: Angela Kallhoff (University of Vienna)

VISU 2014

Humans/Animals. A Contested Boundary

Main Lecturers: Richard Burkhardt (University of Illinois)

Susan Jones (University of Minnesota)

Georgina Montgomery (Michigan State University)

Guest Lecturers: Mitchell Ash, Herwig Grimm (University of Vienna)

Tom Tyler (Oxford Brookes University)

USS-SWC 2015

The Computational Turn. Simulation in Science

Main Lecturers: Rainer Hegselmann (University of Bayreuth)

Paul Humphreys (University of Virginia) Margaret Morrison (University of Toronto)

Guest Lecturer: Kevin Zollmann (Carnegie Mellon University)

USS-SWC 2016

Science, Values, and Democracy?

Main Lecturers: Mark B. Brown (California State University, Sacramento)

Heather Douglas (University of Waterloo, Ontario)

Andrew Jewett (Harvard University)

Guest Lecturer: Alexander Bogner (Austrian Academy of Sciences)

USS-SWC 2017

Genomics, Philosophy, Ethics, Policy

Main Lecturers: Robert Cook-Deegan (Duke University, Durham)

Paul E. Griffiths (University of Sydney)

Jennifer Reardon (University of California, Santa Cruz)

Guest Lecturer: William English (Georgetown University, Washington, DC)

USS-SWC 2018

Thought Experiments

Main Lecturers: Elke Brendel (University of Bonn)

James Robert Brown (University of Toronto) John D. Norton (University of Pittsburgh)

Guest Lecturer: Mauricio Suárez (Complutense University of Madrid)

PREVIEW

USS-SWC 2019

Philosophy and Psychiatry

Main Lecturers: Rachel Cooper (Lancaster University)

Dominic Murphy (The University of Sydney) Tim Thornton (University of Central Lancashire)

Guest Lecturer: Raffaella Campaner (University of Bologna)

USS-SWC 2020

Representation in Art and Science

Main Lecturers: Dominic Lopes (University of British Columbia)

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USS-SWC 2021

Counterfactual History, History of Science and Historical Science

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